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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/661,622	09/15/2003	Pierre Paul Guebels	MR1035-1308	7933
4586	7590	06/07/2004	EXAMINER	
ROSENBERG, KLEIN & LEE 3458 ELLICOTT CENTER DRIVE-SUITE 101 ELLICOTT CITY, MD 21043			NGUYEN, LONG T	
			ART UNIT	PAPER NUMBER
			2816	

DATE MAILED: 06/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/661,622	GUEBELS, PIERRE PAUL	
	<b>Examiner</b>	<b>Art Unit</b>	
	Long Nguyen	2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 September 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12 and 22-26 is/are rejected.
- 7) ☐ Claim(s) 11 and 13-21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the circuit comprises “a differential pair” in claims 23 and 25 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

The drawings are also objected to because Figure 1a should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

The drawings are also objected to because there are numerous informalities in Figure 3. Note that “VOHmax” of comparator 360 should be changed to --VOLmin-- (see line 22 of page 8); and the positive and negative terminals of comparators 350 and 360 need to be shown in Figure 3.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the specification is not clear in providing antecedent basis and/or in discussing the operation of the circuit for that “a duty cycle of an output waveform of the output buffer is equal to a duty of the clock input” as recited in claims 6 and 17. Clarification and/or appropriate correction is requested.

***Claim Objections***

3. Claims 1-21 are objected to because of the following informalities:

Claim 1, line 3, "enable," should be changed to --enable input,--.

Claim 1, line 16, "resistance," should be changed to --resistor--.

Claim 1, line 34, "resistance are coupled;" should be changed to --resistor are coupled together;--.

Claim 1, line 36, "coupled;" should be changed to -- coupled together;--.

Claims 2-10 are objected to because they include the informalities of claim 1.

Claim 11, line 3, "enable," should be changed to --enable input,--.

Claim 11, line 16, "resistance," should be changed to --resistor--.

Claim 11, line 34, "resistance are coupled;" should be changed to --resistor are coupled together;--.

Claim 11, line 36, "coupled;" should be changed to -- coupled together;--.

Claims 12-21 are objected to because they include the informalities of claim 11.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 22-26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with

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which it is most nearly connected, to make and/or use the invention. Claims 22-26 are deemed to be an effective single means claim since only “a voltage-based output circuit” is defined in the claims to perform the function of the output voltage. Clearly, the specification fails to enable the single means claims. See MPEP 2164.08(a).

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1-11, 13, 23 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to claim 1, the recitation “the second negative power supply is less than the first negative power supply” on the last 2 lines of the claim is misdescriptive because it is inconsistent with the description of the specification, see line 2 of page 9 of the instant specification in which VOLmin (2<sup>nd</sup> negative power supply) is greater than 0V (1<sup>st</sup> negative power supply). Clarification and/or appropriate correction is requested.

Claims 2-10 are indefinite because they include the indefiniteness of claim 1.

With respect to claim 12, the recitation “the second negative power supply is less than the first negative power supply” on the last 2 lines of the claim indefinite for the same reason as discussed in claim 1.

With respect to claims 23 and 25, “a differential pair” on line 2 of the claims is indefinite because it is not understood “a differential pair” of what. Clarification and/or appropriate correction is requested.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 22-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Hwang et al. (US 2002/0084825 A1).

With respect to claims 22-26, Figure 2 of the Hwang et al. reference discloses a CMOS output buffer which includes a voltage-based output circuit (Figure 2) whereby a full signal swing of an output of the voltage-based output is prevented (see paragraph 31).

***Allowable Subject Matter***

10. Claims 11 and 13-21 would be allowed if amended to overcome the informalities set forth above.

Claim 11 would be allowed because the prior art of record fails to disclose or suggest a CMOS output buffer circuit including, in combination with other limitations, first and second comparators and a resistor with the recited connections and operations set forth therein.

Claims 13-21 would be allowed because they depend on claim 11.

11. Claims 1-10 and 12 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Claim 1 would be allowed for the same reason as indicated in claim 11 above.

Claims 2-10 would be allowed because they depend on claim 1.

Claim 12 would be allowed because they depend on claim 11.

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***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directly to Examiner Long Nguyen whose telephone number is (571) 272-1753. The Examiner can normally be reached on Monday to Friday from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Callahan, can be reached at (571) 272-1740. The fax number for this group is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

May 26, 2004



Long Nguyen  
Primary Examiner  
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